MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER **2, 2016/2017 SESSION**

TSO 7021 – Service Oriented Architecture Using Web Services

(All sections / Groups)

6 FEBRUARY 2017
8.00 p.m - 10.00 p.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 4 pages only.

2. Attempt **ALL** the questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write your answers in the Answer Booklet provided.

Question 1

a) TripAdvisor is one of the leading hotel booking company that allows users to search and book a room from various hotel booking providers such as Agoda and booking.com. Explain how TripAdvisor can transform its functionality into services based on Service Oriented Architecture so that the system can be programmed and integrated into various platforms. [4 marks]

b) Namespace is used to distinguish between elements especially when there is a name collision. What does the URL in the namespace contains? [1 mark]

c) What is the problem with the following elements?

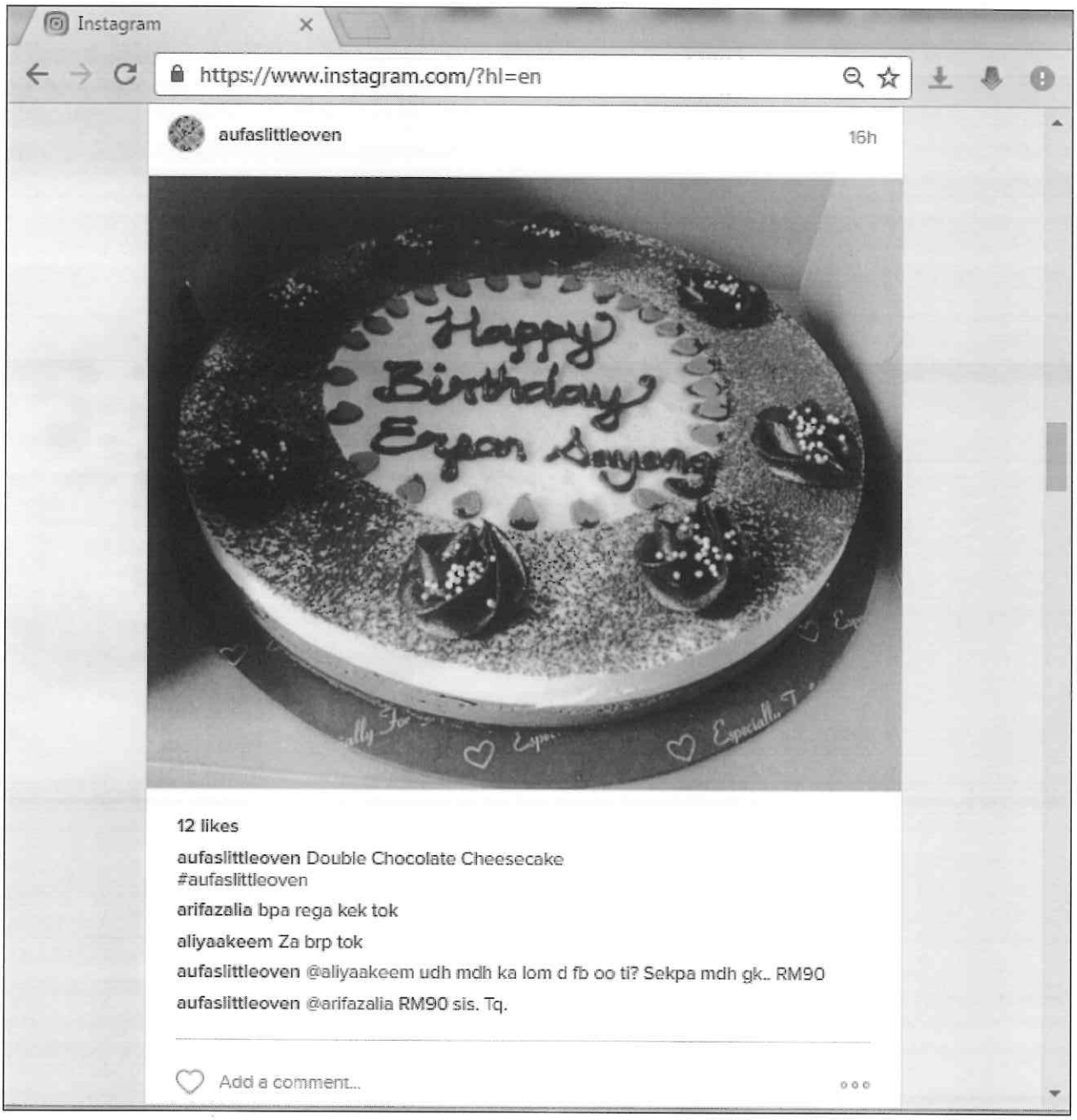
```
<item>
    <price>RM200</price>
</item>
```

Rewrite the XML code in order to fix the problem. [2 marks]

d) List down three disadvantages of using an attribute as compared to using an element to store a data. [3 marks]

Continued.....

Question 2



a) Write the DTD for the above website. [4 marks]

b) Write the XML Schema that is equivalent to the DTD in question 2(a). [4 marks]

Continued.....

c) Write one (1) XML document that conforms to the DTD in question 2(a). [2 marks]

Question 3

a) What will happen if the SOAP request cannot be processed by the Service Provider? List down two possible causes of these problems. [3 marks]

b) Consider the following C# code.

```
[WebMethod]
public Flight ticketBooking(string seatType, float ticketPrice)
{
   // implementation omitted
}

public class Flight {
     public string seatStatus;
     private int id;
     private string seatAvailability;
     public string currentSeatStatus()
    {
          return seatStatus;
     }
}
```

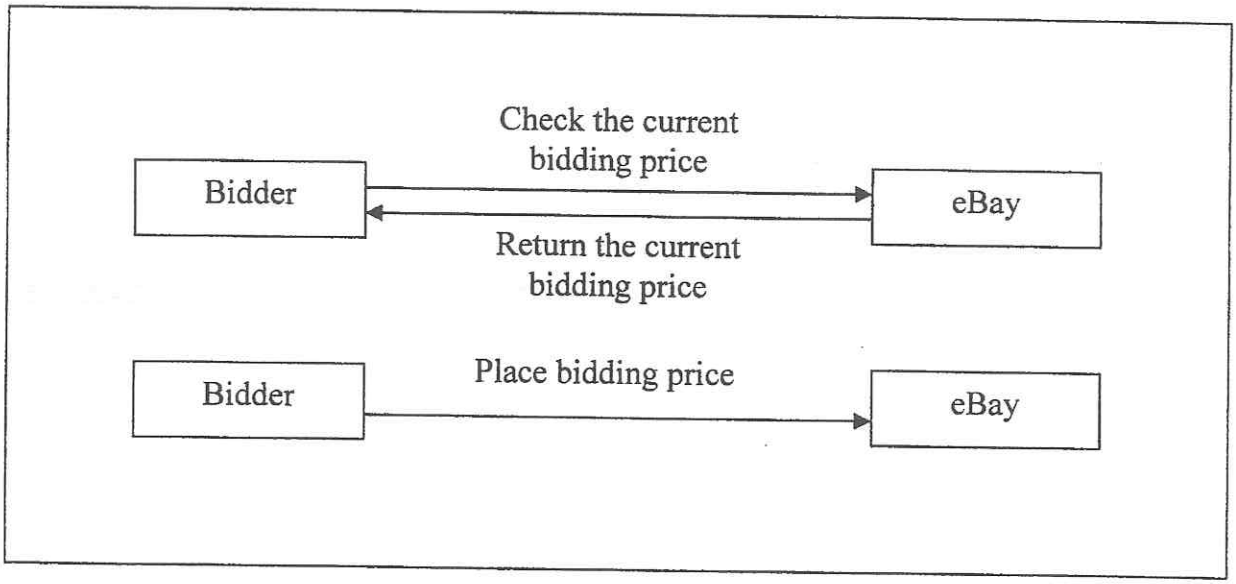
Write the SOAP request and response for the above web method. [6 marks]

c) Why UDDI is less popular compared to third party repository? [1 mark]

Continued.....

Question 4

a) Consider the following scenario.



Write the <types> element of the WSDL that describes all the functions for the above scenario. [4 marks]

b) Refer to the scenario in Question 4. Write the <message> elements that describe all the messages being used for the communication.[4 marks]

c) How do we measure the quality of service in Web Service? [2 marks]

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